

**TENNESSEE DEPARTMENT OF REVENUE**  
**LETTER RULING #97- 46**

**WARNING**

**Letter rulings are binding on the Department only with respect to the individual taxpayer being addressed in the ruling. This presentation of the ruling in a redacted form is informational only. Rulings are made in response to particular facts presented and are not intended necessarily as statements of Department policy.**

**SUBJECT**

The application of sales and use tax to the purchase of a system comprised of computer hardware and software used to control and monitor manufacturing processes.

**SCOPE**

This letter ruling is an interpretation and application of the tax law as it relates to a specific set of existing facts furnished to the department by the taxpayer. The rulings herein are binding upon the Department and are applicable only to the individual taxpayer being addressed.

This letter ruling may be revoked or modified by the Commissioner at any time.

Such revocation or modification shall be effective retroactively unless the following conditions are met, in which case the revocation shall be prospective only:

- (A) The taxpayer must not have misstated or omitted material facts involved in the transaction;
- (B) Facts that develop later must not be materially different from the facts upon which the ruling was based;
- (C) The applicable law must not have been changed or amended;
- (D) The ruling must have been issued originally with respect to a prospective or proposed transaction; and
- (E) The taxpayer directly involved must have acted in good faith in relying upon the ruling; and a retroactive revocation of the ruling must inure to the taxpayer's detriment.

**FACTS**

[THE TAXPAYER], a manufacturer of [PRODUCTS], plans to install on its production lines a manufacturing control system called Flexible Manufacturing in Electronics (FME). Consisting of hardware (including computers and bar code scanners) and

software, the system will indicate to the operators which machines, tools, programs, instructions, and routings to use for each particular product. It will identify and alert the operators to any defects exceeding the quality control limits, allowing the line to be stopped and the problems corrected. Additionally, the system will keep a record of each product, including who worked on the product and when, to insure that it passes through all manufacturing steps properly. Finally, it will track the manufacturer and lot number of any “critical component,” a component which could cause serious human injury if it failed.

The facts provided indicate that the taxpayer is a manufacturer. For the purposes of this letter ruling, it is assumed that at least fifty-one percent of the taxpayer’s gross revenue at this location is derived from fabricating tangible personal property for resale to others for use and consumption off the premises of the taxpayer.

### **ISSUE**

Whether the purchase of the Flexible Manufacturing in Electronics system would be subject to sales or use tax.

### **RULING**

The system as described would qualify as industrial machinery, exempt from sales or use tax.

### **ANALYSIS**

Both the hardware and the software which compose the system the taxpayer plans to purchase are tangible personal property. Tenn. Code Ann. §67-6-102(24)(B) and (28). The sale or use of tangible personal property is subject to taxation. However, Tenn. Code Ann. §67-6-206 provides to manufacturers an exemption with respect to industrial machinery, defined in Tenn. Code Ann. §67-6-102(12) in pertinent part as:

Machinery, apparatus and equipment with all associated parts, appurtenances and accessories, including hydraulic fluids, lubricating oils, and greases necessary for operation and maintenance, repair parts and any necessary repair or taxable installation labor therefor, which is necessary to, and primarily for the fabrication or processing of tangible personal property for resale and consumption off the premises...where the use of such machinery, equipment or facilities is by one who engages in such fabrication or processing as one’s principal business....”

Tenn. Code Ann. §67-6-102(12)(A).

This definition contains four requirements which must be met in order for the FME to be exempt as industrial machinery. First, the taxpayer must be a manufacturer. Second, the

FME must be machinery, apparatus or equipment. Third, the FME must be necessary to the fabrication of the taxpayer's [PRODUCTS]. Fourth, the FME must be used primarily for the fabrication of the taxpayer's product.

Under the facts presented, the taxpayer does qualify as a manufacturer. A manufacturer is defined within T.C.A. §67-6-102(12)(A) as "one who engages in [the] fabrication or processing [of tangible personal property for resale and consumption off the premises] as one's principal business...." Manufacturing is the taxpayer's principal business if at least fifty-one percent of a taxpayer's revenues at a given location are derived from fabricating or processing tangible personal property for resale. *Tennessee Farmers' Cooperative v. State Ex Rel. Jackson*, 736 S.W.2d 87, 91-92 (Tenn. 1987). The facts provide that the taxpayer is principally engaged in the fabrication of [PRODUCTS], and these [PRODUCTS] are sold to others for use and consumption off the premises. The taxpayer is therefore a manufacturer entitled to the exemption provided in T.C.A. §67-6-206(a). Availability of the exemption is contingent upon application and authorization as required by TENN. COMP. R. and REGS. 1320-5-1-1.06.

The second requirement also is satisfied. The system clearly meets the broad definitions of "machinery" or "equipment." See, *Tibbals Flooring Company v. Huddleston*, 891 S.W.2d 196, 198-199 (Tenn. 1994).<sup>1</sup> However, not every piece of machinery, apparatus, or equipment used by a manufacturer is exempt. To qualify, it must meet the remaining requirements. The system must be necessary to and used primarily for the manufacturing process.

Prior to 1984, the industrial machinery exemption applied only to machinery which was "directly and primarily" used in the manufacturing process. "Directly" was defined by the Tennessee Supreme Court as "in direct contact with, and without the intervention of any person or thing." *Phillips & Buttorff Mfg. Co. v. Carson*, 217 S.W.2d 1, 5 (Tenn. 1949); *Woods v. General Oils, Inc.*, 558 S.W.2d 433, 436 (Tenn. 1977). For example, in *Azcon Corporation v. Olsen*, No. 83-15, slip op. (Tenn. Feb. 7, 1983), the taxpayer processed scrap metal into steel bars. Exempt items included certain cranes and loaders which came into direct contact with the scrap metal, either in transporting and feeding it into the shredder or in receiving it as it emerged. *Id.* However, a loader which removed debris from the shredder was not industrial machinery. *Id.* The *Azcon* court held that exempt items must be used in the actual fabrication or processing of a product for resale, and the fact that the machinery may be important, even essential, to a continuous operation was not the proper test. *Id.* In another case, the Supreme Court held that drills and explosive loading vehicles were exempt because they operated directly upon the minerals to be mined. *Jersey Miniere Zinc Co. v. Jackson*, 774 S.W.2d 928, 930 (Tenn. 1989).

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<sup>1</sup> The Court defined "machinery" as "machines as a functioning unit" and "equipment" as "the physical resources serving to equip a person [such as] the implements (as machinery or tools) used in an operation or activity...all the fixed assets other than land and buildings of a business enterprise."

However, it is no longer required that every exempt item come into direct contact with the raw material being physically transformed into a finished product. In 1984, the legislature broadened the industrial machinery exemption. In addition to other changes, the legislature removed the language requiring that exempt machinery be “directly used” in the manufacture of tangible personal property, substituting instead the requirement that it be “necessary to” the manufacturing process. 1984 Tenn. Pub. Acts 762. The apparent purpose of the change was to replace the old direct contact test the Court in *Azcon* said could exclude even essential machinery for manufacturing with a more relaxed requirement.

The legislative history of the act indicates an intent to bring Tennessee more in line with what other states were doing in this area. Speaking to the Senate Finance, Ways and Means Committee in reference to the new language, Donald Jackson, Commissioner of Revenue at the time, explained that this change would more closely align Tennessee with other states which exempted a broader range of industrial machinery. S.B. 1617, 93rd General Assembly, Senate Finance, Ways and Means Committee, tape SFWM-1 at 30 (March 27, 1984).

Many states at that time, even several which continue to use the term “directly,” had recognized and adopted the “integrated plant” theory, described by one court as follows:

“The boundaries of the exempt operation must be drawn taking into consideration the entire operation as it is ‘commonly understood’ which operation must, of necessity, include those items which are essential to its operation and which make it an integrated system.”

*Duval Sierrita Corp. v. Arizona Department of Revenue*, 568 P.2d 1098, 1104 (Ariz. Ct. App. 1977) *review denied*; *see also, e.g., Ross v. Greene & Webb Lumber Co.*, 567 S.W.2d 302 (Ky. 1978); *Floyd Charcoal Co. v. Director of Revenue*, 599 S.W.2d 173 (Mo. 1980). In Arizona, for example, equipment to conduct required testing of the manufactured product at various points in the production process was held to be exempt. *Sonee Heat Treating Corp. v. Arizona Department of Revenue*, 872 P.2d 682 (Ariz. Tax Ct. 1994).<sup>2</sup> The same analysis is appropriate in the present situation to determine whether the taxpayer’s equipment is necessary to the manufacturing process.

The word “primarily” remained in the statute following the 1984 revision. That term has been defined by the Tennessee Supreme Court as “first of all; principally; or fundamentally” and as “first in rank or importance, chief, principal, basic or fundamental.” *General Oils, Inc.*, 558 S.W.2d at 436. The machinery, equipment, or

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<sup>2</sup> The exemption statute in Arizona provides: “...the following categories of tangible personal property are also exempt: 1. Machinery, or equipment, used directly in manufacturing, processing, fabricating, job printing, refining or metallurgical operations....” A.R.S. §42-1409(B)(1).

apparatus satisfies this test if at least fifty-one percent of its use is in the manufacturing operation.

Under the facts given here, the FME system serves three functions: 1) it directs the production process by providing information to the operators on how to build each product, including which machines, programs, and routings to use; 2) it monitors quality control as part of the production process, alerting the operators to any defects so that repairs and adjustments can be made; and 3) it tracks the product as part of the production process, assuring that each step in the process is properly completed.

The primary purpose of the FME system is the successful completion of the production process. Each function is to be performed during, and as a part of, the process of fabricating [PRODUCTS]. Although [PRODUCTS] can be produced without such a system, the proper test is whether the object in question is necessary to the production process as engaged in by the taxpayer. In this case, once installed and relied upon, the system would be an integral and necessary part of the way in which the taxpayer goes about producing its product. Under the facts presented, this system would be necessary to and primarily for the manufacturing operation as it is commonly understood.

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